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ABSTRACT

The national problem of literacy has both a basic skills dimension and a general knowledge dimension ("cultural literacy"). Accordingly, since previous research has demonstrated that high-volume reading produces measurable improvement in both dimensions, an "action literacy" project constructed eight reading lists (770 titles) at various levels to answer the question: What should American students read? The program then constructed personal choice tools for each list to answer the question: How can American students be encouraged to read? The program also constructed and identified practical testing resources to answer the question: How can American students demonstrate their reading achievement? The program also assembled experimental evidence and large-scale evidence to demonstrate the efficacy of high-volume personal choice reading in improving writing skills. Two appendixes make up over half the document. Appendix 1 contains information on FIPSE and appendix 2 contains a report of data, including 12 figures, collected for the project. (Author/RS)

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#P116881850--88

The Construction and Use of High-Volume Cultural-Literacy Reading-Tools

During Fall 1988 this "action literacy" project constructed eight reading lists (770 titles) at various levels to answer the question, What should American students read? It then constructed personal-choice tools for each list to answer the question, How can American students be encouraged to read? In Spring 1990 it constructed and identified practical testing resources to answer the question, How can American students demonstrate their reading achievement? It also assembled experimental evidence and large-scale evidence to demonstrate the efficaciousness of high-volume personal-choice reading in improving writing skills. In Summer and early Fall of 1989 these tools were evaluated and used by educational decision-makers.

Project Director: Robert Oliphant, Dept. of English, California State University, Northridge, CA 91330. (818) 885--3431

Project Products:

How to Improve Your Writing Skills Through Individualized High Speed General-Interest Reading, with a special supplement, The Case for Improving Writing-Skills Through Individualized High-Speed General-Interest Reading. (258 pp.)

Bringing Books Back: A Practical Alternative for Decision-Makers in American Higher Education (142 pp.)

Summary: U.S. Dept. of Education Grant . . . #P116881850--88

Project: The Construction and Use of High-Volume Cultural Literacy Reading Tools to Improve the Cultural Literacy and Basic Skills of ESL Students at CSUN
Grantee: California State University Foundation, 18111 Nordhoff Street, Northridge, California 91330
Project Director: Robert Oliphant, Professor of English (818) 885-3431

OVERVIEW.

The design and execution of this project can be summed up in one key phrase: action literacy. Starting with the recognition that our national problem of literacy has both a basic-skills dimension and a general-knowledge dimension ("cultural literacy"), the project represents a practical extension of previous research done by Stephen Krashen (the "input hypothesis"), which demonstrates that high-volume reading produces measurable improvement in both basic-skills literacy (including writing proficiency) and general-knowledge literacy. Practically considered, the project's starting point was the question: How can American students be encouraged to read more--a lot more?

From a tool-construction perspective, the project rephrased its starting question in tool-construction terms: What specific tools do we need in order to encourage American students to read more, a lot more? Drawing upon an analysis of results achieved via a previous project (1986-87), the project constructed a wide range of demonstrably effective reading-encouragement tools, using a tool-construction research-framework of five basic action-literacy questions.

--What should American students read?
--How can American students be encouraged to read?
--How can American students demonstrate their reading-achievement?
--How can the educational value of high-volume reading-achievement be unequivocally demonstrated?
--How can action-literacy tools be evaluated and put to use by decision-makers in American education?

The tools constructed in response to these five questions fall into two groups: ready-to-use tools, and program-resource tools. The ready-to-use tools are available in the form of two key project-monographs: "How to Improve Your Writing Skills Through Individualized High-Speed General Interest Reading"(258 pp.); "Bringing Books Back: A Practical Alternative for Decision-Makers in American Education" (142 pp.). The program-resource tools are available in a variety of forms, ranging from book-based testing resources to monographs on writing-skills improvement and test-construction. As planned, a number of these tools have been put to effective use in a number of locales serving ESL students at CSUN and elsewhere, including Northern Nevada Community College and the University of Southern Mississippi.

PROJECT DESCRIPTION.

1. What Should American Students Read? The project began in Fall 1988 by identifying three primary book-selection criteria: (a) recommended-reading-list status; (b) current paperback availability; (c) readability-rating information (the project developed a very cost-effective technique using publicly acessible data in Books in Print).

The project used its three book-selection criteria to produce eight action-literacy reading lists, ranging in difficulty from college-level down to remedial third-grade reading level.

--A 77-title "Up to Date Great Books" reading list (college level)
--A 59-title "classic" literature reading-list (high-school/college)
--A 77-title "distinguished books" reading list (high school)
--A 72-title "popular books" reading list (junior high school)
--A 155-title "structural awareness" reading list (sixth grade)
--A 167-title "language awareness" reading list (third grade)
--An 18-title "cultural literacy" reading list (college-remedial)
--A 145-title "consensus resource" reading list (college level)

2. How can American students be encouraged to read? During Fall 1988 the project identified four key requirements for encouraging American students to read more: (a) a personally rewarding reading goal (improvement in writing proficiency was identified as a primary student-goal); (b) an appropriate personal reading-target (basic-skills level was linked to the amount of reading needed); (c) a personally satisfying reading program (the range of choice was linked to personal-choice information--content profiles and a preference-ranking system); (d) practical resources (a "best fit" matrix system was devised to achieve maximum personal choice at minimum book-cost).

The project met these four requirements by producing the following reading-encouragement materials.

--Personal-choice information for each book on the eight action-literacy reading lists listed above.
--Classroom-tested "best fit" matrix-sequence procedures.
--Reading-goal and reading-target rationales (these are addressed directly to the prospective student-client).
--Personal-choice challenge-centered writing-materials (these link high-volume reading to the student-goal of writing-proficiency improvement).

3. How can American students demonstrate their reading-achievement? This question required substantial attention in terms of current test-item construction-theory. During Fall 1988 the project identified five key factors in effective book-based testing: (a) a clearly defined testing goal (i.e., identifying those who have actually read a specific book, as opposed to those who have not); (b) an attractive personal test-taking motivation (i.e., "memory strengthening," paralleling that of crossword puzzles); (c) practical test-construction procedures; (d) practical testing resources: (e) practical testing-administration and records procedures.

These five key factors played a role in the construction of the following testing resources.

--Forty-five 40-item content-recall specific-book-based question pools.
--A question-pool availability-resource (The Electronic Bookshelf) for elementary, junior high, and high school titles.
--Eighteen ready-to-use 25-item book-based tests (with keys)
--In-class and out-of-class essay-question formats for general use.
--Four 50-item "cultural literacy" tests (with keys).
--A "cultural literacy" 1006-item test construction base.
--A sequence-recall objective-question format with supporting materials (this was developed at the end of the project; it is very, very cost-effective).

4. How can the educational value of high-volume reading achievement be unequivocally demonstrated? The project identified three ways in which to demonstrate the educational value and practical efficaciousness of high-volume reading achievment: (a) demonstrable improvement in cultural literacy; (b) demonstrable improvement in writing skills; (c) large-scale evidence supporting the educational value of high-volume reading.

During Spring 1989 the project conducted a number of studies and produced the following documents.

--"New Legs for Cultural Literacy: a Case Study Involving ESL Students." This represents an extension of 1986-87 project results: results which were subsequently analyzed in greater depth.

--"The Case for Improving Writing-Skills Through Individualized High-Speed General-Interest Reading: Empirical Research Questions--and Answers" (41 pp.) This presents both experimental evidence and large-scale statistical-comparison data, which was examined and evaluated positively by people with expertise in statistical matters: Phyllis Shaeffer, Testing Office at CSUN, and Stephen Krashen, Professor of Linguistics at USC. In their judgment the writing-skills case is supported by the evidence presented.

5. How can action-literacy tools be evaluated and put to use by decision-makers in American Education? The project defined three central evaluation/use goals: (a) identifying and contacting appropriate people; (b) a framework for analyzing responses (negative responses, positive responses, serious program-consideration, and actual adoption and use). (c) practical ready-to-use action-literacy materials for examination and potential adoption.

During Spring, Summer and early Fall 1989, the project constructed and circulated two kinds of tools: ready-to-use tools and program-resource tools (e.g., program descriptions, workshop sketches, etc.)

--Ready-to Use Action Literacy Tools (in "desktop published" monograph form: "How to Improve Your Writing Skills Through Individual High-Speed General-Interest Reading" (258 pp.); "Bringing Books Back: A Practical Alternative for Decision-Makers in American Education" (142 pp.).

--Program-Resource Action-Literacy Tools: "Action-Literacy Resources" (1 p.); "Action Literacy Resources Survey" (15 pp.); "Writing-Skills Improvement Through Challenge-Centered Writing and High-Volume Personal-Choice Reading: A One-Day Workshop Sketch" (7 pp.); "Improving Cultural Literacy" (60 pp.); "The High-Energy Writer" (38 pp.); "Outside Reading and Book-Based Testing" (in preparation).

RESULTS AND CONCLUSIONS.

---Actual adoption and use. AL tools have been adopted and used in the following locales: University of Southern Mississippi "Summer Reading for Autumn Learning program, Fall 1990; Northern Nevada Community College remedial program, for Spring 1990; CSUN "cultural literacy" bookstore program, Fall 1988.

---Other responses. AL tools are currently under serious consideration in other locales, e.g., Southwestern Educational Resource Center (for Native Americans). More informal responses have been highly positive, with the exception of some of those professionally involved with high-cost direct instruction in writing-skills. Thanks to this project, the action-literacy approach promises to have substantial future impact.

Project Title: The Construction and Use of High-Volume Cultural-Literacy Reading Tools to Improve the Cultural Literacy and Basic Skills of ESL Students at CSUN

Project Director: Robert Oliphant, Dept. of English, California State University, Northridge, California 91330. (818) 885-3431

OVERVIEW.

American society and American education today face a problem that can be summed up in one word: literacy. One dimension of the problem is what might be called "basic skills" literacy, the ability to read and write with demonstrable effectiveness. Another dimension is what might be called "general knowledge" literacy or "cultural literacy," which as pointed out by E.D. Hirsch, Jr. and others encompasses the knowledge required for basic-skills literacy: vocabulary, current events knowledge, basic knowledge of history, science, political institutions, etc. As is recognized today, the two dimensions are closely linked, to the degree that many people now question the wisdom of attempting to teach basic-skills literacy in isolation from general-knowledge literacy.

A reasonable premise for attacking our two-dimensional literacy problem can be stated in one phrase: action literacy. From a common sense perspective, most of us would agree that the act of reading has an impact upon both basic-skills literacy and general-knowledge literacy, the more of it the better. Take spelling, for example. As pointed out by Herbert Simon in "Models of Thought," there are as codified by Paul Hannah of Stanford University six hundred "rules" that cover our complex English spelling system: rules which if mastered will equip us with 80% spelling accuracy. Since most of us do much better than this, even though we haven't learned the six hundred rules, it's clear we've acquired our spelling skills through sustained visual exposure, primarily reading. Consequently, an increase in reading can by itself be expected to produce substantial improvement in both basic-skills literacy and general-knowledge

literacy.

Practically considered, calling for an increase in reading on the part of American students is very much like Shakespeare's Glendower calling "spirits from the vasty deep"; there is no assurance that such a call will be heeded, especially in a climate that does little to encourage high-volume reading. Consequently, once high-volume reading is identified as an appropriate way of improving basic-skills literacy and general-knowledge literacy, we are faced with a very serious practical question: How can American students be encouraged to read more, a lot more?

During 1988-89, a project supported by the Fund for the Improvement of Postsecondary Education attempted to answer the high-volume action-literacy question by focusing upon its practical implications and rephrasing it: What specific tools do we need in order to encourage American students to read more, a lot more? Drawing upon the results of a 1986-87 FIPSE project, the 1988-89 project constructed a wide range of potentially effective action-literacy tools, using a research-framework of five basic action-literacy questions.

--What should American students read?

--How can American students be encouraged to read?

--How can American students demonstrate their reading-achievement?

--How can the educational value of high-volume reading-achievement be unequivocally demonstrated?

--How can action-literacy tools be evaluated and put to use by decision-makers in American education?

PROJECT DESCRIPTION.

These five questions are as stated quite general. But each of them leads to some very specific answers, along with practical tools that can be used in a wide range of educational settings.

What should American students read?

As matters stand there are almost as many answers to this question as there are readers, with a consequent lack of consensus. Focusing upon books as essential to high-volume reading, the project identified three primary book-selection criteria.

Recommended-Reading Status. One source used by the project was "The Bowker Annual," which lists non-fiction literary prizewinners for each year. Other sources used were various state and school-district reading lists, e.g., Los Angeles Unified School District. This criterion produced a large group of preliminary book-candidates.

Current Paperback Availability. From a reader's point of view, a 1966 prizewinner that is still being printed and sold at a reasonable price inspires more confidence than a 1984 prizewinner gathering dust on a library shelf. From a list-compiler's point of view, current-paperback status suggests a book-candidate is potentially usable in a program, along with being practically available via purchase or library resources. The source used was Books in Print, which is now available in computer-diskette form.

Readability Ratings. From a reader's point of view, reading-difficulty is a major concern. The project used three sources of information in determining readability levels and specific readability ratings. One source was the recommended reading-lists themselves,

which range in reading-difficulty from third-grade level on up to college-preparatory level. Another source was index information in nonfiction books, which was used to produce readability profiles, readability profile-rankings, and readability profile-ratings on a 1.0--5.0 scale.

The most practical tool - turned out to be readability profiles, rankings, and ratings based on BIP information regarding page-length and selling price. Since the number of words per page can vary from 300 to 700, page length by itself is not a reliable measure. But since selling price is determined by popularity, not production cost, the multiplication of stated page-length by stated paperback price produces a very quick basis for specific-book readability rankings.

Recommended reading status, current paperback availability, readability ratings: these three criteria were used to produce eight action-literacy reading lists:

--A 77-title Up-to-Date Great Books Reading List (UDGB). This list is based on Bowker nonfiction literary prizewinners, 1962-88. Objective tests are available for forty-five of the titles on this list. It is highly suitable for college students, and has been adopted for use with entering freshmen (1990-91) by the University of Southern Mississippi.

--A 59-Title Up-to-Date Classic Literature Reading List (UDCL). This list is based on recommended reading lists currently in use in a number of states. As well, colleges and universities study the listed works and authors: Twain, Dickens, Hemingway, Arthur Miller, etc. Objective tests for the books on this list are currently available from The Electronic Bookshelf (EB), 14752 Beach Blvd., #200, La Mirada, CA 90638, (714) 523-9000.

--A 77-Title Up-to-Date Distinguished Books Reading List (UDDB). Based on same lists as UDCL. Ojective tests available from EB. Authors and

works of distinction and popularity: Ken Kesey, John Knowles, John Hersey, Eudora Welty, Maya Angelou, etc. Easier reading than UDGB or UDCL.

--A 72-Title Up-to-Date Popular-Books Reading List (UDPB). Junior high school level. Objective tests available from EB. Authors of moderate distinction and substantial popularity: Ray Bradbury, Howard Fast, Scott O'Dell, Mary Stewart, J.R.R. Tolkien, etc.

--A 155-Title Up-to-Date Structural-Awareness Reading List (UDSA). Sixth grade level. Objective tests available from EB. Relatively short works that introduce the reader to the basic structural elements of fiction: characters, plot, suspense, theme, etc. Reputable authors: Judy Blume, Sheila Burnford, Beverly Cleary, Madeline L'Engle, Ursula LeGuin, etc.

--A 167-Title Up-to-Date Language Awareness Reading List (UDLA). Third Grade Level. Objective tests available from EB. Short works with plenty of suspense. Very suitable for adult beginning readers and English-as-a-second-language students. Introduces vocabulary, sentence structure, and--most important--sustained reading experience. Reputable authors: Dahl, Estes, McClosky, Norton, etc.

--An 18-Title Cultural-Literacy Improvement Reading List (CLI). This has been used effectively with college-level remedial ESL students. Objective tests available. Selected on the basis of "up to date great names" in each book's index. Reputable authors: Sagan, Bronowski, Stephen Jay Gould, etc. Adopted for use in remedial program, Northern Nevada Community College.

--A 145-Title Special-Program Consensus-Resource Reading List (SPCR). This list was the final preliminary list for UDGB. It can be used as a starting point by institutions wanting to construct a smaller reading list with a clearly defined theme, e.g., Montana Tech's "technology and society" theme. The University of Southern Mississippi used UDGB for this purpose, emerging with a faculty-consensus 20-book "core curriculum"

list.

How can American students be encouraged to read?

The project's point of departure was a recognition that the act of reading is a personal act, even though it may take place in an institutional setting. On the basis of this recognition, the project identified four key requirements for encouraging American students to read.

--A Personally Rewarding Reading-Goal. The project discovered, partly through trial and error, that students are far more concerned about writing-skills improvement than about reading-skills improvement or improvement in cultural literacy. Reading skills, for example, are difficult to measure in informal settings. So is cultural literacy, since there is no clear consensus on what it is or what it should be. Writing skills, on the other hand, are subject to constant assessment, ranging from graduation-requirement writing-proficiency examinations to employment application essays--even Miss America contestants must today write an impromptu essay. For most American students, no matter what their level may be, writing-skills improvement is perceived as a personally rewarding reading goal.

--A Specifically Appropriate Personal Reading-Target. The action-literacy premise is that high-volume reading will improve writing-skills. Consequently, a student's specific high-volume need will depend upon that student's writing-skills level. The project discovered via study of CSUN data that SAT-verbal scores correlate very closely with scores on entrance writing-proficiency tests and with grades in writing courses (composition, remedial, and pre-remedial). This correlation suggested a practical method for each student to identify his or her personal reading

target by linking the SAT verbal score to the volume of reading needed and to the readability-level of the lists used. In terms of this linking, two hours of reading would be needed for every point below a 550-score, so that a 350-student would need 400 hours of reading, i.e., 100 hrs (20 books) from UDPB, followed by 100 from UDDB, and 100 from UDCL, and 100 from UDGB.

Since curriculum-reading has a uniform time-requirement, this kind of SAT-verbal reading-target linking is more practical for extracurricular programs and remedial-center programs, especially when students are clearly aware of their need to improve in writing skills.

--A Personally Satisfying Reading Program. The action-literacy premise invites emphasis upon personal-choice in reading, since the volume of reading is more important than the actual books. Since adequate information is essential for effective personal choice, the project constructed appropriate content-descriptions for all the books on the reading lists, along with a personal-preference rating system for readers to use in designing personal-choice reading scenario-programs, along with readability ratings (both rating systems use the same 1--5 scale).

--Practical Resources for Personal-Choice Reading Programs. The project recognized the need for cost-effective use of institutional resources in encouraging and guiding personal-choice reading programs. The project also discovered that preference ratings vary greatly, even with a relatively small number of alternatives. The project accordingly devised a "best fit" individualized reading-sequence system in which student preferences played a key role in the assignment of individualized reading sequences designed to make effective use of minimum resources. Number of titles, number of copies per title, number of students, number of books per week to be read--these are the key "best fit" factors. Simply put, since each

student follows a different reading sequence (based on personal preference), the "best fit" matrix system works well with 15 titles on reserve, with two copies each, serving a class of 30 students, each of whom follows a 15-book reading sequence. The result: maximum reading at minimum cost.

A personally rewarding reading-goal, a specifically appropriate personal reading-target, a personally satisfying reading program, practical resources for personal-choice reading programs--these four key requirements were met by production of the following reading-encouragement materials.

--Personal-Choice for UDGB. These materials are quite detailed: a content-description based on book reviews (approx 100 wds.) for each of the 77 titles; a content sample based on index for each title; a practicality rating based on index proper-names (1-5 scale), worksheets for translating preference-ratings and practicality ratings into a personally appropriate reading-scenario.

--Personal Choice for UDCL, UDDB, UDPB, UDSA, AND SPCR. These materials are quite simple, i.e. a BIP-based content-profile for each title.

--Personal Choice for CLI. The content descriptions for each title are based on paperback jacket copy. This practical approach was used in a CSUN classroom experiment during 1987.

--Classroom-Tested "Best Fit" Matrix-Sequence Procedures. These procedures were used in 1987 with 48 students, each of whom read 18 books. With 18 different reading-sequences (assigned on the basis of indicated personal book-preference), only two copies per title were needed on reserve, supplemented by three books purchased by each student (cost $25) and traded back and forth.

--Reading-Goal and Reading-Target Rationales: "Summer Reading for Autumn Learning: A Letter to an Entering Student." "Recommended Reading:

A Letter to a Conscientious Student," "The Reader's Edge: A Letter to an Entering Business-School Student" (this contains SAT-verbal/reading time charts).

--Personal Choice Challenge-Centered Writing-Materials. In view of the importance of writing-skills improvement as a student concern, the project developed supplementary materials suitable for in-class use. These materials offer the student-reader a list of 100 one-word topics for use in designing a personal-preference writing scenario: topic sentences, sentence-chains, one-paragraph essays, essay-sketches, short essays, and sample writing-proficiency examination-topics. This out-of-class reading, in-class writing combination was used with excellent results in the 1987 ESL experiment.

How can American students demonstrate their reading-achievement?

Simple fairness requires that a student who has read a book be given an opportunity to demonstrate that he or she has in fact done so. Since tests of various kinds offer such an opportunity, the project identified five key factors in effective book-based testing.

A Clearly Defined Testing Goal. High-volume reading rules out intense study and memorization, along with tests that demand high-performance comprehension and interpretation. Consequently the project defined its primary testing-goal as that of ascertaining whether or not the pages of a specific book had actually been turned and given reasonable attention. Though modest, this "page turning" goal is more ambitious than the goal of conventional book reports and papers, which often invite the use of "book-substitutes": book reviews, summaries, film-cassete versions, "Cliff Notes," etc.

--An Attractive Personal Test-Taking Motivation. From an instructor's point of view, tests are practical monitoring devices; from a student's point of view, they are ordeals to be feared. Consequently the project searched for a test-taking rationale that would be acceptable to students in the same way that crossword puzzles are acceptable to many Americans. The rationale chosen centered upon the importance of tests as "memory strengtheners." This rationale is supported by memory-loss research done earlier as a prelude to the project.

--Practical Book-Based Test-Construction Procedures. As matters stand, book-based test construction is time-consuming; the psychometrist Richard O'Connell of CSUN estimates fifteen minutes per fully-presented test-item (question, foils, etc.). To make matters even worse, current American test-item construction theory is relatively weak, as pointed out by Bormuth, and by Crocker and Algina. Consequently, the project developed its own economical procedure for constructing index-based test items ("Diving into the Invisible Question Pool"). By way of reducing costs still further, the project developed two other economical procedures: sequence-recall test-item construction, and general essay-question format book-based test construction.

--Practical Book-Based Testing Resources. The project constructed a large number of book-based content-recall question-pools and tests based on those question pools. It also constructed illustrative essay-question formats, suitable for fiction and nonfiction, and illustrative seuquence-recall tests. Finally, and most important, it identified an excellent current source for 30-item question pools covering lists UDCL, UDDB, UDPB, UDSA, UDLA. This source, the Electronic Bookshelf (previously identified0 also offers other book-based testing pools, along with computer-terminal programs.

--Practical Book-Based Testing Adminstration and Records Procedures. As indicated earlier, high-volume personal-choice reading requires "best fit" individualized reading-sequences in an institutional setting. The project therefore developed a "best fit" individualized reading/test-taking sequence procedure. This procedure was used in the 1987 experiment and refined further for use with larger numbers of books and students.

A clearly defined testing-goal, a personal test-taking motivation, practical test-construction procedures, practical testing resources, practical administration and records procedures--these five key factors played a role in the construction of the following testing resources.

--A 40-item content-recall question pool for each title in a 45-title group taken from UDGB.

--A question pool availability resource for each title on lists UDCL, UDDB, UDPB, UDSA, UDLA.

--Eighteen 25-item tests (with keys) for CLI.

--A 20-minute in-class essay-question format suitable for use with all reading lists. The very basic writing-skills required are covered in the challenge-centered writing materials previous desdribed.

--An open-ended out-of-class essay-question format suitable for use with all lists. This format permits various degrees of complexity and rhetorical-structure challenge.

--Four 50-item "cultural literacy tests (with keys). Two of these tests were normed in connection with the 1987 experiments. Since improvement in cultural literacy is a proper educational goal, these tests can be very useful.

--A Cultural Literacy "great names" list (1006 names). This list can be used as an item base for constructing cultural-literacy test items. The list itself embodies an objectively determined definition of cultural literacy as biographical "great names" that currently appear in citation indices, e.g., Info-Trac. It has two information-dimensions: chronological position (who's earlier than whom), and number of 1986 citations (who's more important today than whom). Consequently many, many tests can be constructed from this list.

--A Sequence-Recall question-format with supporting materials and explanations. This book-based test-construction approach grew out of contact with instructors wishing to use books not on any of the lists offered. For such instructors, this approach is practical and economical, especially if photocopy-passages are used instead of typed-out passages. Construction-time for a 20-minute 25-item test: 20 minutes for passage selection, 40-60 minutes for passage presentation (this can be done by office professionals).

How can the educational value of high-volume reading-achievement be unequivocally demonstrated?

The project identified three ways for demonstrating the educational value of high-volume reading achievement.

Demonstrable Improvement in Cultural Literacy. As indicated earlier, the project constructed and normed two cultural literacy tests suitable for pre-test and post-test use in an experimental setting. As used in the 1987 experiment, this testing framework produced results justifying a claim of substantial improvement in cultural literacy as a result of high-volume reading (5400 pp.) by ESL students. The scores of these students, for example, showed 1000% relative improvement over those of

another group taking the same tests (students in an upper-division English course). In addition 27% of the ESL students equalled or surpassed the scores of 80% of the students in a graduate-level English course.

The project scrutinized these apparently impressive experimental results with great care. Their primary weaknesses are these: (1) The purposes of the control-group courses are different. (2) The basic course-activities are different; English majors, for example, read slowly and thoughtfully, not rapidly and in high volume. In terms of the canons of respectable scientific inquiry, then, the cultural-literacy results, though promising, do not constitute an unequivocal demonstration of the educational value of high-volume reading achievement.

Demonstrable Improvement in Writing Skills. From a writing-skills perspective, the 1987 experiment had a very strong design: (1) a pre-experiment evaluation for both groups; (2) a classroom purpose and activity (in-class writing) common to both groups; (3) an activity that would be open to experiment (i.e., the use of outside time for high-volume reading, as opposed to low-volume reading and writing-skills exercises); (4) a post-experiment evaluation for both groups (i.e. a program-wide writing-proficiency examination). As evaluated by psychometrists and statisticians, the design meets the requirements of responsible scientific inquiry.

In terms of this strong experiment-design, the results achieved clearly provide an unequivocal demonstration of the educational value of high-volume reading achievement. The post-experiment evaluation performance of the experiment group yielded 18.75% success, as opposed to 2.38% for comparison-group X (210 students) and 2.30% for comparison group Y (314 students). These results are even more impressive when the comparison is

made involving other ESL students taking the same course, justifying a claim of 2700% relative improvement in writing-skills. In addition, the demonstration acquires even greater force from the project's supporting data: SAT scores, grade transcripts, etc.

Large-Scale Evidence Supporting the Educational Value of High-Volume Reading. The project made a preliminary study of three kinds of large-scale evidence currently available at CSUN and at similar institutions: (1) evidence regarding department performance on standardized writing-proficiency tests (the CSU system requires such a test for graduation); (2) evidence regarding department library use (the CSUN library keeps detailed demographic records, including departments and academic level); (3) evidence regarding department emphasis upon direct instruction in writing (catalogue description, schedule of classes, "official" class size, etc. The results of this preliminary study strongly suggest that high-volume reading, even in large classes (e.g. history 50-student lecture courses),produces better writing-skills performance than high-cost direct instruction in writing (small classes, overworked instructors, etc.).

These results have been set forth in detail in two key documents:

--"New Legs for Cultural Literacy: A Case Study Involving English-as-Second Language Students" (12 pp.). This contains an illustrative test, the 5400-page, 18-book reading list, and comparison data.

--"The Case for Improving Writing Skills Through Individualized High-Speed General-Interest Reading: Empirical Research Questions--and Answers" (41 pp.). This contains the experimental results and large-scale evidence described above, along with a description of how to replicate the experiment in a practical manner.

How can action-literacy tools be evaluated and put to use by decision-makers in American education?

As a tool-construction enterprise, the project's most important goal is that of getting its tools evaluated in a positive manner and put to use in productive settings. By way of achieving this goal, the project defined its primary audience in terms of a dual role, that of evaluator/decision-maker. In terms of this dual role, for example, a positive evaluation by an instructor, though useful, would be less helpful than a positive evaluation from a vice president in charge of academic affairs, whose positive evaluation might well lead to the use of a specific tool in an institution's academic program. This dual-role definition carried with it three basic requirements.

--Identifying and Contacting Appropriate Evaluator/Decision-Makers. From the outset the project recognized a strong possibility that its action-literacy tools could be helpful in a number of problem-locales: remedial programs, ESL programs, prison-education, rehabilitation, vocational education, technical and professional educations, and even senior-citizens outreach programs. It therefore identified a number of specific problem-concerned institutions and organizations, along with specific decision-makers who could be contacted and who could refer the project to other decision makers with similar problems.

—A Framework for Analyzing the Responses of Evaluator/Decision-Makers. The project planned on four general kinds of response: (1) negative responses, including reluctance to examine action-literacy materials; (2) positive responses, including suggestions and constructive criticism; (3) serious

consideration of action-literacy tools for use in existing programs; (4) actual adoption and use, including adaptation, of action-literacy tools by educational decision-makers.

Practical Action-Literacy Materials for Examination by Evaluator/Decision-Makers. The action-literacy approach is basically that of placing the right books in the hands of the right reader in the right sequence. Along the same lines, the serious consideration of action-literacy tools clearly requires placing the right materials in the hands of the right evaluator/decision-maker in the right sequence. The project met this requirement by devising a three-stage contact-sequence: (1) a one-page document for preliminary consideration; (2) a fifteen-page document for interested consideration; (3) a group of six ready-to use action-literacy tools for serious evaluation and consideration. In addition, the project constructed a number of special-purpose action-literacy tools for consideration and use in special problem-locales.

By way of placing the right materials in the hands of the right E/DM in the right sequence, the project constructed the following materials:

--"Action-Literacy Resources" (one page). This describes the action-literacy premise, along with six ready-to-use action-literacy tools.

--"Action-Literacy Resources-Survey" (15 pp.). This describes the six ready-to-use tools in greater detail.

--"Writing-Skills Improvement Through Challenge-Centered Writing and High-Volume Personal-Choice Reading: A One-Day Workshop Sketch" (7 pp.). This is a ready-to-use tool. The workshop itself has already been presented--at Northern Nevada Community College, Elko, Nevada, Oct. 6, 1989.

--How to Improve Your Writing-Skills Through Individualized High-Speed General Interest Reading, Northridge, 1989 (258 pp.). As the number of pages indicates, this is an important ready-to-use tool. It contains the 77-title "up to date great books" nonfiction reading list, along with detailed content-descriptions and procedures for deisgning personal-choice reading-scenarios. It also contains "The Case for Improving Writing Skills . . ." described earlier.

--Bringing Books Back: A Practical Alternative for Decision-Makers in American Education, Northridge, 1989 (142 pp.). This is addressed directly to decision makers. It deals with a number of specific problem-locales and general issues. It contains the "reader's edge" program described earlier, including book lists.

--Improving Cultural Literacy, Northridge, 1987 (60 pp.). This is designed for use by instructors. It includes two cultural literacy tests and eighteen 25-item book-based content-recall tests.

--"Summer Reading for Autumn Learning: An Extracurricular Approach to Improving Written Literacy and Cultural Literacy" (14 pp.). This program has been adopted and adapted by the University of Southern Mississippi for use with the entering freshman class, 1990-91. It contains the 77-title base list and a "Letter to an Entering Student."

--The High-Energy Writer: Writing Skills Improvement Through Personal-Choice Challenge-Centered Writing and High-Volume reading, Northridge, 1989 (38 pp., i,e., Table of Contents and Chaper One). This includes one of the challenge-centered writing tools described earlier. It will also contain the multi-level book lists described earlier, ranging from college level down to third-grade level. This is the last of the six ready-to-use action-literacy tools for general examination by evaluator/decision-mamkers.

--Outside Reading and Book-Based Testing: Practical Classroom Tools (in preparation). This is a special-purpose tool for use in programs concerned with effective book-based testing. It presents the three procedures described earlier: content-recall test-construction, sequence-recall test-construction, and general essay-question format test-construction. It also contains cultural literacy tests, the 1006 "great names" cultural literacy test-base, and a complete listing of currently available book-based tests keyed to various reading lists.

--A preliminary version of How to Improve Your Writing Skills Through Individualized High-Speed General Interest Reading, Northridge, 1988 (38 pp.). This version was made available to CSUN students via a college bookstore "cultural literacy" display that included books by Hirsch, Bloom, and the eighteen books covered in the preliminary version, along with an inserted reader-response guide. In terms of sales, this theme-display was very successful.

-Individualized-Reading Testing-Resources, Northridge, 1989. This contains the 40-item book-based question pools described earlier. It is available in print-out and diskette form.

--How to Improve Your Language Skills Through Multi-Level Individualized Reading (in preparation). This is a broadly-based version of "How to Improve Your Writing Skills . . . ." It contains six of the book lists described earlier--a total of 675 titles--ranging in difficulty from college-level down to third-grade level. It also contains a content-profile for each title based on "Books in Print" information, along with readability ratings and personal-choice scenario procedures.

--"Action-Literacy and Rehabilitation Services: A One-Day Workshop for Social-Services and Health-Care Professionals" (20 pp.). This was designed for presentation to ElderMed professionals,

RESULTS AND CONCLUSIONS.

The project achieved its primary goal: the construction and use of action-literacy tools to improve writing skills and cultural literacy. The tools have already been described; here is an analysis of responses to them:

--Actual Adoption and Use. Project tools have been adopted and put to use in a number of educational settings: University of Southern Mississippi, Northern Nevada Community College's developmental program, the CSUN college bookstore's "cultural literacy" theme display.

--Serious Consideration. The criterion for serious consideration was established as a direct expression of further interest after preliminary contact (stages one and two). A number of institutions and organizations are currently giving serious consideration to the use of action-literacy tools, e.g., The Southwestern Educational Resource Center, Tempe, Arizona, which is directly concerned with meeting the needs of native Americans.

--Positive Responses. Project tools and materials received positive responses from a number of evaluator/decision-makers, e.g., psychometrists and statisticians, directors of professional organizations, academic deans, academic vice presidents, etc. There were also a number of helpful suggestions, e.g., additional sources of large-scale evidence and additional evaluator/decision-makers to contact.

--Negative Responses. There were some negative responses, largely expressed as a reluctance to examine literacy-tools and materials. This reluctance was most noticeable in people professionally involved with high-cost direct instruction in writing-skills. Since action-literacy tools clearly offer a low-cost alternative to this high-cost commitment, these

negative responses are quite helpful. Simply put, they indicate that action-literacy tools are at present better suited to special programs (prison education, extracurricular innovation, etc.) than to programs with a strong commitment to high-cost direct instruction in writing. Ultimately, of course, it is quite possible that growing acceptance and use of action-literacy tools will invite their serious consideration by members of what's been called the "writing-teaching industry"

Future Prospects. Action-literacy and action-literacy tools will continue to get attention and serious consideration. During 1988 four project-related articles were published, and one presentation made to a professional organization. During 1989, two presentations were made. For 1990 two more are planned, e.g., the American Assembly of Collegiate Schools of Business meeting in San Francisco. As has been indicated, the problem itself is recognized as serious, and the approach has substantial authority, thanks to the work of Stephen Krashen and others. So it is fair to say that the tools constructed in this project will be put to substantial use, as well as--even more important--serving to guide the construction of newer action literacy tools, and better ones.

As historians like Thomas Kuhn remind us, there are two requirements for effective innovation, be it in warfare, technology, or education. One requirement is that a need be clearly perceived; the other is that practical tools be available for meeting that need. On the basis of responses by evaluator/decision-makers, the project can be reasonably characterized as perceiving a current need and meeting it effectively.

From a common-sense point of view, the project is a very simple one that says in effect, "If we want students to read more, a lot more, here are some cost-effective tools for helping them to do it." But this simplicity, a little like the Emperor's New Clothes, may be its greatest strength.

APPENDIX ONE: INSIGHTS FOR FIPSE

As indicated in the Forewords of the monographs and literacy tools produced by this project, the project officers of FIPSE have been very helpful in guiding this project to a successful completion, and so has the director of FIPSE, Dr. Charles Karelis, who has been a source of insight and good sense in both this venture and its 1986-87 predecessor. From a project director's point of view, the FIPSE structure works quite well--including the announcements that go forth each year.

This particular project has entailed some serious attention to the future of American postsecondary education, largely for the reason that its high-volume personal-choice reading-approach runs counter to current thinking--especially that of our "direct writing-skills instruction industry." To the degree that the project embodies a plausible picture of our educational future, its insights may be helpful to FIPSE today in its identification and support of other projects.

Future Academic Talent. In 1965 this country awarded roughly 30,000 Ph.D.'s (a substantial increase over the pattern of previous years, according to the ACE yearbook). In 1965 this country also had 30,000 SAT-verbal scores over 700. Since 1965 this country has continued to award roughly 30,000 Ph.D.'s a year, but the number of SAT 700's has dropped from 30,000 to 15,000 in 1975 (according to Lester Thurow) and then down to roughly 8,000 in 1984. To put it bluntly, it is highly unlikely that many of our new professors at mass-education institutions have SAT verbal scores over 600. In light of this "Incredible Shrinking Professor" scenario, our present emphasis upon "good teachers" projects should be reduced.

Future Out-of-Class Study Time. The only way for poorly prepared students to achieve academically is for them to invest substantial time in out-of-class study. Our traditional "Carnegie unit," for example, assumes that an "average" student who puts in two hours outside for every hour in class will earn an "average" grade of C, as opposed to a B for three hours outside or an A for four. Our students at mass-education institutions like CSUN are clearly below the traditional "average" (the average entering SAT verbal at CSUN is now 390, as opposed to 650 at Swarthmore); their grades, on the other hand are above average (2.6, or B-); their study-time has shrunk to less than an hour outside for each hour in class--a point made recently by Professor David Glidden of UC Riverside.

To put it bluntly, it is essential for educators to abandon the "more learning in less time" fiction, especially when it involves expensive gadgetry and techniques (team teaching, one-on-one, etc.). As matters stand, postsecondary education is very much like an aerobics class in which the instructor does all the pushups. It is also somewhat fraudulent, since educational funding is still based on the Carnegie unit "homework" assumption, e.g., "full time course loads," etc. FIPSE would do well to de-emphasize classroom teaching in favor of out-of-class learning activity, e.g., personal-choice reading.

Future Activity-Based Testing-Resources. Our testing establishment presumes to measure knowledge, including Professor Hirsch's cultural-literacy tests. But it fails to link either knowledge or test to specific activities, e.g., reading specific books, that can be performed by earnest young people. FIPSE could well consider projects that meet general-education goals via appropriately guided and monitored high-volume personal-choice reading: an option that would put our information technology to effective use.

APPENDIX TWO

The Case for Improving Writing Skills Through Individualized High-Speed General-Interest Reading: Empirical-Research Questions--and Answers

There is nothing new or striking in the notion that reading can, and should, play a major role in a writer's development; traditionally, for example, aspiring writers have been advised to read books, lots of them and lots of good ones. Today, however, many American educators have a strong professional commitment to direct writing-instruction as a crucial factor in the development of writing skills. In light of this current commitment to direct writing-instruction, it is highly proper to answer the four central questions which might be raised concerning the improvement of writing skills through individualized high-speed general-interest reading (IWS/IHGR).

• What experimental evidence supports IWS/IHGR?

Attachment A presents experimental evidence that strongly supports IWS/IHGR. It is based on a longer more comprehensive report submitted to the Fund for the Improvement of Postsecondary Education (FIPSE), U.S. Department of Education. Copies of the full report, as indicated in the summary, are available from the project director and from FIPSE.

The report describes a classroom experiment involving 48 remedial-level English-as-a-second-language (ESL) students. The goal of the experiment was to bring about and measure IWS/IHGR in these students. The design of the experiment included established-measure external pre-tests and post-tests, along with an appropriate comparison-group (other remedial students taking the same pre-tests and post-tests). As indicated in Attachment A, the results of the experiment (1000% relative improvement) provide strong support for IWS/IHGR.

- **How reliable is the experimental evidence supporting IWS/IHGR?**

Traditional canons of scientific inquiry require that an experiment be replicable, ideally by a neutral third-party investigator. Attachment B describes the tools used in the experiment in a way that would permit another investigator to construct similar tools and replicate the experiment. Even more important, Attachment B identifies the project monograph, "Improving Cultural Literacy Through High-Volume General Interest Reading," indicating that copies of this monograph are currently available from the project director.

The project monograph contains the tools used in the experiment, with the exception of the in-class writing exercises. As noted in Attachment B, the 18 book-based objective tests required substantial construction time. Since the project monograph contains these 18 tests and their answer keys, it is fair to say that a neutral third-party investigator could easily replicate the experiment, using either the monograph and its tools or tools similar to those tools.

By virtue of its replicability, the experimental evidence supporting IWS/IHGR can be characterized as highly reliable.

- **What large-scale evidence supports IWS/IHGR as a cost-effective alternative to direct writing-instruction?**

Up until recently there has been very little evidence available regarding the efficaciousness of direct writing-instruction: evidence that would permit a cost-effectiveness comparison of IWS/IHGR. It is true that we have evidence indicating that direct writing-instruction is very costly, and it is also true that we have evidence indicating that the writing-proficiency of American students is not very high. But this kind of evidence is far from conclusive, since it can easily be interpreted as justifying an even greater social investment in conventional direct writing-instruction.

Today, thanks to our information technology, we have large-scale evidence to support the relative cost-effectiveness of IWS/IHGR. As set forth in Attachment C, that evidence is made up of three key elements:

(1) evidence regarding student performance on standardized writing-proficiency tests (e.g., sociology majors, history majors, etc.);
(2) evidence regarding student enrollment in direct writing-instruction courses (journalism majors, history majors, etc.);
(3) evidence regarding student reading in the form of detailed library-use statistics (theater majors, history majors, etc.).

The preliminary study of this evidence set forth in Attachment C indicates that high-volume reading plays a key role in high performance on standardized writing-proficiency tests, far more so than enrollment in direct writing-instruction courses.

It is important to note here that the preliminary study set forth in Attachment C is replicable, since most large institutions today have available detailed evidence regarding student test performance, student course-enrollment, and student library-use. In view of this potential replicability, Attachment C can fairly be taken as support for IWS/IHGR.

- **What other current research supports the relative cost-effectiveness of IWS/INGR?**

The case for IWS/IHGR owes a great deal to other investigators, including those whose theoretical concerns have opened the door for more specific results-centered inquiries. Attachment D cites some of this research, noting where appropriate its direct relevance to IWS/IHGR.

A Final Note

There is nothing mysterious or arcane about writing. Every reasonably successful American has learned how to write effectively as a simple matter of on-the-job career necessity, just as every reasonably well-educated American has learned how to write effectively as part of the educational process, e.g., essay examinations, reports, research papers, etc. Consequently the judgment of demonstrably effective American writers should also be taken into account as part of the case for IWS/IHGR.

There is no doubt that direct writing-instruction can be helpful in some instances (Lee Iacocca has paid tribute to his high school English teacher). But there is also doubt that most effective American writers (businessmen, scholars, government servants, etc.) would pay

tribute to the role of reading in advancing their effectiveness as writers and speakers.

Simply put, the case for IWS/IHGR is a case for reading--personally congenial reading, and lots of it. Given the desirability of personally congenial reading, FIPSE is currently supporting a project designed to construct and validate tools for broadening the range of reading-choice, extending the range from 18 books to 150. With such a range, the case for IWS/IHGR will ultimately be even stronger than the one presented here.

ATTACHMENT A

Improving Writing-Skills Through High-Volume Reading

A Classroom Experiment

In Spring 1987 a classroom experiment was comducted at California State University, Northridge (CSUN), to determine the impact of high-volume out-of-class reading upon the developement of writing skills. The experiment was supported by a grant from the Fund for the Improvement of Postsecondary Education (FISPE), U.S. Department of Education. A complete description of the experiment is set forth in a forty-page report submitted to FISPE on November 1, 1987.

The results of that experiment indicate that high-volume out-of-class reading produces a substantial improvement in writing skills. To put it more assertively, the results of the experiment can be summed up in one sentence: A 1000% increase in out-of-class reading will produce a 1000% relative improvement in writing skills.

A provocative assertion requires a lot of proof to back it up, especially where matters of pedagogy and educational policy are involved. Additional evidence has therefore been drawn from other sources, principally the CSUN testing office and registrar's office, along with a recent report by Dr. George Uba of the CSUN Department of English, "ESL Report, 1987-88." For practical purposes, the case can be presented in three steps: (1) the experiment design and its results; (2) the English-as-a-second language (ESL) factor; (3) the long-term writing-skills improvement factor.

1. The Experiment Design and Its Results.

The basic design of the experiment called for two components: an experiment-group of students, and a comparison group of students large enough to permit sound conclusions. In terms of such a comparison, four common elements were required: (a) a pre-experiment evaluation of each group; (b) a classroom activity common to both groups; (c) an activity that would be open to experiment; (d) a post-experiment evaluation for both groups.

(a) Pre-Experiment Evaluation for Both Groups. As indicated in Figure 1, entering students at CSUN are required to take the "English Placement Test" (EPT), an instrument designed and scored by the Educational Testing Service, that determines their assignment to one of three freshman-level writing courses. The need for this three-level program is indicated by Figure 2, which sets forth both the range of EPT scores and the range of SAT-Verbal scores. As indicated in Figure 3, "Freshman-Level Writing Courses at CSUN," the pre-remedial writing course is the only course of the three in which enrollment is determined by EPT scores alone. Hence both the experiment group (two sections of the pre-RW course) and the comparison group (other sections of the same pre-RW course) are clearly defined by their common low-score EPT feature.

(b) A Classroom Activity Common to Both Groups. As indicated in Figure 3, the freshman-level writing courses are offered by different departments and described differently, even though their EPT requirements are the same. But they are taught in a similar manner, especially the remedial-level courses, whose students must perform acceptably on a program-wide writing proficiency examination in order to receive credit. Hence there is a great deal of in-class writing activity in each class designed to prepare students for this end-of-the-semester requirement, even in the lowest-level course--which is still described in the catalog as "Developmental Reading." For practical purposes, this course is today a pre-RW course; all the instructors emphasize in-class writing as preparation for the program-wide writing proficiency examination.

(c) An Activity That Would Be Open to Experiment. The out-of-class activity by students is clearly open to experiment. Students are asked to do a certain amount of reading and writing outside of class in the pre-RW course, but it usually receives less attention than the in-class writing. Hence it would be quite practical to introduce out-of-class high-volume reading as an appropriate out-of-class activity for the experiment group, doing so in a manner that would not exceed the traditional Carnegie-unit requirement that each in-class hour of instruction be matched by at least two hours of outside work on the part of the student. This Carnegie-unit requirement is a matter of official record; a "full time student work-week" is defined by the American Council on Education as "forty to fifty hours."

(d) A Post-Experiment Evaluation for Both Groups. As indicated in Figure 3, both groups are required to take an end-of-the-semester writing proficiency examination. In addition, as indicated in Figure 3, students from both groups are eligible to challenge the remedial-writing course requirement by taking the program-wide writing proficiency examination given to students in the remedial-writing course, and passing it with a higher minimum score (8) than that required for the RW students (7).

A word is in order here regarding the design and scoring of these program-wide WPE's. For both, the topics and instructions are drawn up by a committee (they are similar to topics used in the essay section of the EPT). Students are asked to write on the same topic, with a time-limitation of forty minutes, during class on a designated day of the last instructional week under the supervision of their instructor. The papers are then taken to the director of the developemental program, who supervises a scoring-meeting in which each paper is read by at least two outside readers and scored "holistically" on a 2-12 scale in the same fashion as the university graduation requirement WPE.

As indicated in Figure 4, the ideal post-experiment evaluation for the two groups is that of performance on the RW WPE, not on the pre-RW WPE. It is true that the number of pre-RW students taking, and passing, the RW WPE is relatively small. On the other hand, the RW WPE results have much more authority than those of the pre-RW WPE. The standards are higher, for example, and the examination-conditions are more objective, since the pre-RW instructor serves as a proctor. Most important, the examination-results show up unequivocally in university grade-data, since the names of pre-RW students who pass the RW WPE are sent directly to the registrar for entry into the computer, so that these students will be able to register for their written composition course (English 155, etc.) via the computerized registration process. Since university grade-data for the pre-RW course reflect the instructor's personal judgement to some degree, the RW "challenge" WPE is objectively superior to the pre-RW WPE.

To sum up: The research design is fundamentally a writing-skills research design. Students are assigned to the pre-RW course solely on the basis of their performance on the EPT, a reputable established measure of writing skills. Their work in the pre-RW course em-

phasizes in-class writing designed to improve their writing skills. Their end-of-the-semester evaluation is a WPE very similar to the instrument used to place them in the course. Consequently any improvement in end-of-the-semester WPE performance, especially on the RW WPE, by the experiment group can be measured against the performance of a comparison group with similar characteristics and course experiences.

TOOL CONSTRUCTION. During Fall 1986 the project director constructed tools for use with two experimental sections of the pre-RW course scheduled for Spring 1987. These tools can best be described as answers to three central questions, each of them tied in with high-volume reading.

What should students read? With a goal of over 5000 pages of out-of-class reading, it was essential to choose books with care. The first decision made was to choose recent (1976-86) nonfiction books, since these would serve as appropriate models of the expository writing-skills called for by the end-of-the-semester WPE. After that, specific books were chosen in terms of three criteria: (1) literary prizewinners, as listed in the Bowker Annual (1976-86); (2) current paperback availability, as listed in Books in Print (1986); (3) practical readability as indicated by length and content-analysis (the proportion of index proper names was the key element). This procedure, step by step, trimmed a starting list from 200 to 75 and then to 18.

How can students be motivated to read? Since the goal was high-volume reading, not content mastery, there was no reason why each student should read the 18 books (roughly 5400 pp.) in the same sequence. Accordingly, 18 different reading sequences were identified in which high-priced paperbacks were flanked by lower-priced ones, so that no student would have to pay more than $25 for the first three books in his or her individual sequence. After that, a personal preference survey was constructed so that students could be assigned individualized reading sequences on the basis of their personal responses to content-descriptions for each book. It should be added that this individual-sequence feature permitted reserve book room use and personal borrowing from other students. More reading, more personal choice, more economy--this was the equation drawn up.

How can students demonstrate their retention of what they have

read? With a goal of 5400 pages of outside reading, complete understanding and comprehension was clearly out of the question, especially for remedial students with very low EPT and SAT-Verbal scores. On the other hand, it was clearly necessary to devise some kind of testing instrument for purposes of course effectiveness and morale. Since book reports take time and invite plagerism, they were out of the question; since oral reports and discussion would take time away from in-class writing, a necessary feature of the course, these too were out of the question. Accordingly, a forty-item objective test-item pool was constructed for each book and used to produce a twenty-five item test suitable for machine scoring, thus permitting each of the 18 individualized reading-sequences to serve as individualized reading/test taking sequences.

To sum up: A good reading list, a personal-preference instrument for assigning individualized reading-sequences, a collection of practical book-based objective tests--these were the tools constructed for use in the experiment.

RESULTS OF THE EXPERIMENT. As indicated in Figure 5, the experiment was quite successful. Nine of the students passed the RW WPE (18.75%, as opposed to 2.38% from comparison group X (5 out of 210) and 2.30% from comparison group Y (7 out of 314)). From a research perspective, these results clearly indicate that high volume reading produces substantial improvement in writing skills. From a more assertive perspective, the results come very close to supporting the claim of a 1000% relative improvement, i.e. 18.75% as opposed to 2.38% and 2.30%.

A strong case invites strong objections, one of which can center upon the instructor involved, since an experienced hard-working instructor is bound to produce superior results. It should therefore be emphasized that the instructor had never taught the course before and had never taught any kind of remedial writing course. In addition, it should be emphasized that the instructor, as noted in Figure 5, spent no time in correcting papers and student conferences (apart from three students who sought advice on career decision matters). Consequently, the results should be attributed to the tools, not to the instructor or teaching approach.

Another objection that can be raised centers upon the post-experi-

ment evaluation, i.e., the RW challenge feature, since an evaluation is very much like evaluating schools by the prowess of their athletic teams--as opposed to the general physical condition of the entire student body--or by the powers (scholarships won, etc.) of their best students. Although this objection has already been dealt with, it should be noted here that the unequivocal nature of this measure permits large scale group comparison and subsequent in-depth tracking of successful challengers. The key requirement for a measure, after all, is that it be unequivocal, not just broadly based.

The most serious objection that can be raised centers upon cause and effect. As any behavioral scientist knows, correlation is not causality; the fact that high volume reading correlates with writing skills improvement does not really prove that HV reading produces WS improvement, since it could be argued that any substantial increase in out-of-class effort ("homework") would produce similar results. It should be emphasized, however, that reading backed up by appropriate testing is still the only effective means of increasing homework; outside writing assignments, for example, require instructional time for correction. Consequently, the homework objection is really an argument in favor of high volume reading as a practical homework requirement in a course that often fails to live up to its Carnegie-unit responsibility.

To sum up: The experiment design ensured that both the experiment group and the comparison groups were defined in terms of the same pre-experiment evaluation and that they engaged in common classroom activity (in-class writing). Accordingly, since the experiment group engaged in high-volume reading, and since its post-experiment writing skills examination performance was superior to the performance of the comparison groups, it is reasonable to attribute that performance-superiority to the impact of the high-volume reading done, especially since the evidence supporting the results claimed is verifiable via university records: EPT scores, course enrollments, and registration prerequisite data.

2. The "English as a Second Language" Factor.

Additional support for the experiment's results comes from the special characteristics of the students in the two pre-RW sections taught. As indicated in Figure 6, the university graduation-requirement WPE records identify students as "non-ESL" and "ESL," a large

group whose performance is far inferior to the non-ESL group--even though ESL students are given more time for the WPE-- a fact which encourages them to identify themselves as ESL students. Accordingly, as indicated by Figure 7, CSUN offers a number of writing courses specifically designated for students who identify themselves as ESL--including the two pre-RW sections used in the experiment.

It should be emphasized that CSUN does not have an objective definition of an ESL student, as opposed to a non-ESL student. As indicated in Figure 8, EPT scores use the listings for non-citizen and citizen, as do CSUN figures for SAT scores (Figure 9). As indicated from the range of nationalities set forth in Figure 10, non-citizen status is far from being synonymous with putative ESL status, since the non-citizen group includes students from Australia (13) and Canada (133), along with many other demonstrably "non-ESL" students.

Practically considered, the offering of special ESL pre-RW course-sections is justified by the fact that the non-citizen performance on both the EPT and the SAT is in general quite low, and by the fact that citizens in ESL courses do more poorly than non-citizens in non-ESL courses, as indicated in Figure 11. Consequently it is appropriate to measure the post-experiment performance of the pre-RW experiment students against the performance of students in other pre-RW "ESL" sections (i.e., English 097ESL). (Only two or three sections of English 097ESL are offered each semester.)

As indicated in Figure 12, the results of this comparison forcefully support the value of high-volume out-of-class reading in improving writing skills. The challenge success rate, 18.75%, is far above the challenge success rate of the comparison groups, i.e. .7% (i.e. one pass out of 140 ESL students in these two comparison groups), even though the credit rate is higher than that of the experiment group: a rate that may owe a great deal to the wide range of writing deficiency involved in various courses as indicated by the 120-141 range of EPT scores set forth in Figure 1.

To sum up: The experiment's results are impressive when viewed from a pre-RW perspective involving comparison with other ESL pre-RW courses, even though the comparison groups have a relatively small number of students in them. From either perspective, high-volume reading clearly has a demonstrable impact upon the

improvement of writing skills, especially those skills measured by standardized writing-proficiency examinations.

3. The Long Term Writing-Skills Improvement Factor.

There is clearly more to effective writing than the ability to perform appropriately on a writing-proficiency test. Consequently, grade transcripts were assembled for each of the 48 students involved in the 1986-87 experiment. These transcripts were then examined to identify performance in writing-related courses by the pre-RW students, especially English courses. In addition, since relative class standing was of more concern than letter grades, given variations in grading standards, the grade rosters for the English courses were examined. The results of this long term tracking study (summer 1987 to fall 1987) further support the efficaciousness of high volume reading in improving writing skills.

A FINAL NOTE.

High-volume reading is tied in with many kinds of intellectual improvement. A sense of intellectual identity, general information ("cultural literacy," as it's called today), a sense of the great ideas of the past and the vital issues of the present, and awareness of cultural space and time--these all come from reading books, especially good ones. Indeed, as Mortimer Adler pointed out in a recent conference (University of North Texas, 10/20/88), it's better to have a great book and a mediocre teacher than a good teacher and a mediocre book--especially a textbook. So there's much to be said in favor of high volume reading beyond its potential contribution to the improvement of writing skills.

The primary virtue of writing-skills improvement as a reading-target is that this kind of skill is visible, very much like the spelling skills identified by Thorstein Veblen as a prime example of conspicuous consumption. To put it bluntly, almost everyone who makes a decent living in this country must be able to write effectively, yet the skills themselves are very difficult to aquire, especially via direct instruction. The results of this experiment clearly suggest that high-volume reading, appropriately guided and monitored, can play an important role in a national attack on the literacy-deficiencies of many young people.

To put it in common sense terms, a young person who has read only two books in the last year simply cannot be taught how to write, even by the best of instructors. A young person, on the other hand, who has read twenty books, or forty, doesn't need to be taught--by anyone. Consequently, the ultimate value of the experiment lies more in its tools than in its thesis. If the results achieved encourage others to use these tools and construct similar ones, the experiment will have served its purpose well.

Figure 1.

English Placement Test (EPT) scores used to assign students to freshman-level writing courses

EPT Score	Writing Course	No. of Students	%
146 & above	Written Composition	1700	54%
142-145	Remedial Writing	375	12%
120-141	Pre-Remedial Writing	1085	34%
	TOTAL	3160	100%

Figure 2.

Distribution of English Placement Test (EPT) Scores and Scholastic Achievement Test (SAT) Verbal Scores for Students in Freshman-Level Writing Courses: 1986-87.

EPT SCORES	ALL STUDENTS		SAT SCORES	ALL STUDENTS	
SCORE	Number	Percent	SCORE	Number	Percent
120-121	7	.2	200-249	350	8.7
122-123	30	.9	250-299	408	10.1
124-125	67	2.1	300-349	566	14.0
126-127	75	2.4	350-399	777	19.3
128-129	92	2.9	400-449	739	18.3
130-131	97	3.1	450-499	593	14.7
132-133	100	3.2	500-549	351	8.7
134-135	98	3.1	550-599	160	4.0
136-137	123	3.9	600-649	72	1.8
138-139	144	4.6	650-699	14	.3
140-141	154	4.9	700-800	5	.1
142-143	157	5.0		4,035	100.0
144-145	218	6.9			
146-147	225	7.1	Mean=	389.9	
148-149	310	9.8	S.D.=	99.8	
150-151	330	10.4			
152-153	304	9.6			
154-155	267	8.4			
156 & above	362	11.5			
	3,160	100.0			
Mean=	145.2				
S.D.=	9.3				

Figure 3.

Freshman-Level Writing Courses at CSUN

Course: Written Composition
Enrollment Requirement: EPT-score of 146 or above; OR passing grade (credit) in Remedial Writing; OR passing grade (credit) in Pre-Remedial Writing with successful challenge score (8 or above) on Remedial Writing semester-final program-wide writing-proficiency examination; OR EPT score-equivalent as specified in CSUN catalog, e.g. SAT-Verbal score of 510 or above.
Student In-Class Activity: Discussion; some in-class writing.
Student Out-of-Class Activity: Writing assignments; reading; research paper.
Instructor In-Class Activity: Explanation; guiding instruction.
Instructor Out-of-Class Activity: Correcting assignments; student conferences; preparing assignments; keeping course records.
Grading System: "Letter" grades, i.e., A-B-C-D-F-Credit-No Credit.
Basis for Final Grade: Judgement of the instructor.
Specific-Course Titles: Freshman Composition (English); Written Communication Skills (Chicano Studies); Effective Writing (Pan African Studies).
Specific-Course Numbers: English 155; CS 130 (changed to CS 155); PAS 150 (changed to PAS 155).

Course: Remedial Writing
Enrollment Requirement: EPT-score of 142-145; OR pasing grade (credit) in Pre-Remedial Writing.
Student In-Class Activity: Discussion; extensive in-class writing.
Student Out-of-Class Activity: Some written assignments; outside reading.
Instructor In-Class Activity: Explanation; guiding discussion; supervising in-class writing.
Instructor Out-of-Class Activity: Correcting assignments; student conferences; preparing assignments; keeping course records.
Grading System: "Credit/No Credit"
Basis for Final Grade: A score of 7 or beter on the Remedial Writing semester-final program-wide writing-proficiency examination; OR a score of 6 with recomendation from the instructor and approval by the program director.
Specific-Course Titles: Developmental Writing (English); Basic Communication Skills (Chicano Studies); Basic Writing Skills (Pan African Studies).
Specific Course Numbers: English 098; CS 098; PAS 098.

Course: Pre-Remedial Writing (as evolved from developmental reading course).
Enrollment Requirement: EPT-score of 141 or below.
Student and Instructor In-Class and Out-of-Class Activity: Substantially the same as the Remedial Writing course.
Grading System: "Credit/No Credit"
Basis for Final Grade: A score of 6 or better on the Pre-RW semester final program wide writing-proficiency examination; OR 5 with instructor/director approval.
Specific-Course Numbers: English 097; CS 097; PAS 097.

Figure 4.

Advantages/Disadvantages Analysis of Pre-Remedial Writing as a locale for assessing the effect of High-Volume Reading upon writing skills.

Locale-Element

Pre-Experiment Evaluation: Student performance on English Placement Test (EPT)

Advantages: EPT is an Educational Testing Service Instrument; it is administered under controlled, proctored conditions, after which the results are sent to Berkeley, CA for scoring--including the essay-section. All the Pre-RW students take this test.

Common In-Class Activity: All sections of Pre-RW emphasize in-class writing.

Activity open to Experiment: The amount of out-of-class writing and the time devoted to conferences can be replaced by high-volume out-of-class reading: 5400 pp., as opposed to the usual 500. Some of the in-class time can be spent in taking an "individualized reading-preference" survey and in taking book-based tests (18 @ 20" each).

Post-Experiment Evaluation--A: Comparison of final grades (credit/no credit) with those of students in other Pre-RW courses.

Advantages: The results of this comparison would be persuasive, since the comparison group would be large.

Disadvantages: Although student performance on the program-wide writing proficiency examination plays a key role in determining final grades, the judgement of the instructor also plays a part. This comparison would therefore be open to question, especially since the judgement of the experiment's instructor would be involved and since the instructor would be proctoring the exam.

Post-Experiment Evaluation--B: Comparison of performance on program-wide Remedial Writing-Proficiency Examination.

Advantages: No instructor judgement is involved when this examination is taken as a "challenge" by Pre-RW students. Since students take the exam during the final-examination period of an RW class, the experiment's instructor is not involved as a proctor. The standards for passing are quite high--a score of 8 or better, as opposed to 7 or better for the RW students. The program director and department coordinator approve "challenge"

applicants on the basis of an examination of in-class writing.

Disadvantages: Although the comparison group, i.e., other Pre-RW students, is the same as that in Evaluation-A, the number of students who pass the RW "challenge" with a score of 8 or better is relatively small.

OVERALL ASSESSMENT: Pre-Remedial Writng is an appropriate locale for assessing the effect of High-Volume Reading upon writing skills. Post-Experiment Evaluation--B is better than Post-Experiment Evaluation--A; it's more objective, and it can serve as a motivation-target for students asked to do high-volume reading.

Figure 5.

Performance of High-Volume Pre-Remedial Writing Experimental Courses Compared with Performance of Other Pre-Remedial Writing Courses.

Elements	Experiment Group	Comaprison Group X	Comparison Group Y
Courses	English 097 #61004 #61005	Other Pre-Remedial Courses (Eng097, CS097, PAS097)	All Pre-Remedial Courses (Eng097, CS097, PAS097)
Semester	Spring, 1987	Spring, 1987	Fall, 1987
Number of Students	48	210	314
Pre-Evaluation	EPT	EPT	EPT
Pre-Evaluation Scores	120-141	120-141	120-141
Common Activity	In-class writing Discussion	In-class writing Discussion	In-class writing Discussion
Experimental Activity	Out-of-class reading (18 books, 5400 pp.) In-class preference-survey In-class book-based tests		
Non-experimental Activity		Out-of-class Writing Conference Textbook reading (500 pp.)	Out-of-class Writing Conference Textbook reading (500 pp.)

Elements	Experiment Group	Comparison Group X	Comparison Group Y
Post-Evaluation	Remedial Writing Challenge Exam	Remedial Writing Challenge Exam	Remedial Writing Challenge Exam
Post-Evaluation Scores required for successful challenge	8 or above	8 or above	8 or above
Number of successful challenges	9	5	7
Percentage of successful challenges	18.75%	2.38%	2.30%

Figure 6.

ESL Student Performance and Non-ESL Student Performance on the CSUN University Graduation-Requirement Writing Proficiency Examination (1986-87).

	ESL	Non-ESL	Total Students
Number of Students	892	2161	2994
Number of Passes	368	1686	2053
% of Passes	44.4%	78%	68.6%
Number of Fails	459	470	932*
% of Fails	55.4%	21%	31.1%

*The additional discrepancy reflects other catagories, e.g. hard-of-hearing students

Figure 7.

CSUN Freshman-Level Writing Courses (1986-87): Final Grades and Non-Citizen/Citizen Distribution.

COURSE	ALL STUDENTS Number	Percent
Engl. 097		
Credit	216	80.6
No Credit	52	19.4
	268	100.0
Engl. 097 ESL		
Credit	74	60.7
No Credit	48	39.3
	122	100.0
Engl. 098		
Credit	318	79.3
No Credit	83	20.7
	401	100.0
Engl. 098 ESL		
Credit	122	63.5
No Credit	70	36.5
	192	100.0
Engl. 155		
Credit	55	2.6
No Credit	103	4.8
F	39	1.8
D	115	5.3
C	774	35.9
B	808	37.5
A	261	12.1
	2,155	100.0
Engl. 155 ESL		
Credit	20	17.7
No Credit	6	5.3
F	2	1.8
D	7	6.2
C	24	21.2
B	29	25.7
A	25	22.1
	113	100.0

COURSE	NON-CITIZENS Number	Percent	CITIZENS Number	Percent
Engl. 097				
Credit	95	76.0	121	84.6
No Credit	30	24.0	22	15.4
	125	100.0	143	100.0
Engl. 097 ESL				
Credit	59	57.8	15	75.0
No Credit	43	42.2	5	25.0
	102	100.0	20	100.0
Engl. 098				
Credit	98	76.0	220	80.9
No Credit	31	24.0	52	19.1
	129	100.0	272	100.0
Engl. 098 ESL				
Credit	95	62.1	27	69.2
No Credit	58	37.9	12	30.8
	153	100.0	39	100.0
Engl. 155				
Credit	27	9.6	28	1.5
No Credit	17	6.1	86	4.6
F	8	2.9	31	1.7
D	20	7.1	95	5.1
C	85	30.4	689	36.7
B	95	33.9	713	38.0
A	28	10.0	233	12.4
	280	100.0	1,875	100.0
Engl. 155 ESL				
Credit	16	18.6	4	14.8
No Credit	6	7.0	0	.0
F	2	2.3	0	.0
D	7	8.1	0	.0
C	17	19.8	7	25.9
B	23	26.8	6	22.2
A	15	17.4	10	37.0
	86	100.0	27	99.9

COURSE	ALL STUDENTS Number	Percent
Chicano St. 097		
Credit	99	78.0
No Credit	28	22.0
	127	100.0
Chicano ST. 098		
Credit	118	77.1
No Credit	35	22.9
	153	100.0
Chicano ST. 130		
Credit	23	7.2
No Credit	3	.9
F	5	1.6
D	4	1.2
C	44	13.7
B	161	50.2
A	81	25.2
	321	100.0
PAS 097		
Credit	131	78.4
No Credit	36	21.6
	167	100.0
PAS 098		
Credit	139	75.5
No Credit	45	24.5
	184	100.0
PAS 150		
Credit	8	3.3
No Credit	16	6.5
F	10	4.0
D	8	3.3
C	68	27.6
B	89	36.2
A	47	19.1
	246	100.0

COURSE	NON-CITIZENS Number	Percent	CITIZENS Number	Percent
Chicano St. 097				
Credit	48	77.4	51	78.5
No Credit	14	22.6	14	21.5
	62	100.0	65	100.0
Chicano St. 098				
Credit	42	73.7	76	79.2
No Credit	15	26.3	20	20.8
	57	100.0	96	100.0
Chicano St. 130				
Credit	21	20.6	2	.9
No Credit	0	.0	3	1.4
F	0	.0	5	2.3
D	2	2.0	2	.9
C	10	9.8	34	15.5
B	44	43.1	117	53.4
A	25	24.5	56	25.6
	102	100.0	219	100.0
PAS 097				
Credit	18	78.3	113	78.5
No Credit	5	21.7	31	21.5
	23	100.0	144	100.0
PAS 098				
Credit	21	75.0	118	75.6
No Credit	7	25.0	38	24.4
	28	100.0	156	100.0
PAS 150				
Credit	4	14.8	4	1.8
No Credit	3	11.1	13	5.9
F	0	.0	10	4.6
D	0	.0	8	3.7
C	9	33.3	59	27.0
B	7	25.9	82	37.4
A	4	14.8	43	19.6
	27	99.9	219	100.0

Figure 8.

Frequency Distribution of English Placement Test Scores for Students in Freshman Level Writing Courses.

SCORE	ALL STUDENTS Number	Percent	NON-CITIZENS Number	Percent	CITIZENS Number	Percent
120-121	7	.2	6	.8	1	.0
122-123	30	.9	21	2.7	9	.4
124-125	67	2.1	57	7.3	10	.4
126-127	75	2.4	48	6.1	27	1.1
128-129	92	2.9	54	6.9	38	1.6
130-131	97	3.1	47	6.0	50	2.1
132-133	100	3.2	52	6.6	48	2.0
134-135	98	3.1	48	6.1	50	2.1
136-137	123	3.9	50	6.4	73	3.1
138-139	144	4.6	40	5.1	104	4.4
140-141	154	4.9	47	6.0	107	4.5
142-143	157	5.0	42	5.3	115	4.9
144-145	218	6.9	52	6.6	166	7.0
146-147	225	7.1	40	5.1	185	7.8
148-149	310	9.8	49	6.2	261	11.0
150-151	330	10.4	49	6.2	281	11.8
152-153	304	9.6	36	4.6	268	11.3
154-155	268	8.4	20	2.5	247	10.4
156 & above	362	11.5	28	3.5	334	14.1
	3,160	100.0	786	100.0	2,374	100.0
Mean=	145.2		138.5		147.4	
S.D.=	9.3		9.8		8.0	

Figure 9.

Frequency Distribution of SAT-Verbal Scores for Students in Freshman Level Writing Courses.

	ALL STUDENTS		NON-CITIZENS		CITIZENS	
SCORE	Number	Percent	Number	Percent	Number	Percent
200-249	350	8.7	235	28.1	115	3.6
250-299	408	10.1	177	21.2	231	7.2
300-349	566	14.0	142	17.0	424	13.2
350-399	777	19.3	142	17.0	635	19.8
400-449	739	18.3	64	7.7	675	21.1
450-499	593	14.7	39	4.7	554	17.3
500-549	351	8.7	28	3.4	323	10.1
550-599	160	4.0	7	.8	153	4.8
600-649	72	1.8	0	0	72	2.3
650-699	14	.3	1	.1	13	.4
700-800	5	.1	0	0	5	.2
	4,035	100.0	835	100.0	3,200	100.0
Mean=	389.9		311.3		410.3	
S.D.=	99.8		89.1		92.0	

TABLE
Frequency Distribution of TOEFL Scores for students in Freshman Level Writing Courses.

SCORE	NUMBER	PERCENT
400-449	1	1.6
450-499	4	6.2
500-549	24	37.5
550-599	19	29.7
600-649	12	18.7
650 & above	4	6.3
	64	100.0

Mean = 558.1
S.D. = 55.7

Figure 10.

Non-Citizen Students at CSUN.

Immigrants by County - Statistics
Fall 1987

Afganistan	15	Ghana Gold Coast	1	Panama	6
Angola	2	Greece	7	Peru	35
Argentina	27	Guatemala	24	Philippines	157
Australia	13	Guyana British Guiano	1	Poland	8
Austria	6	Haiti	5	Portugal	4
Bahama Isands	6	Hong Kong	55	Reunion	2
Barbados	1	Hungary	8	Romania	17
Belgium	1	India	118	Saint Pierre	1
Brazil	9	Indonesia	21	Saudi Arabia	2
British West Indies	1	Iran	764	Singapore	1
Bulgaria	1	Iraq	12	South Africa	13
Burma	8	Ireland	4	Southwest Africa	7
Cambodia	15	Israel	73	Spain	6
Canada	133	Italy	12	Sweden	5
Sri Lanka	10	Jamaica	10	Switzerland	5
Chile	44	Japan	43	Syria	13
Taiwan	165	Jordan	17	Thailand	37
Colombia	22	Kenya	8	Trimidad	5
Costa Rica	6	Korea	369	Turkey	20
Cuba	46	Kuwait	7	USSR	138
Cyprus	2	Lebanon	80	UAR	22
Czechoslovakia	3	Libya	1	England	93
Dahomey	1	Malawi Nyasaland	1	Uruguay	1
Denmark	4	Mauritius Island	1	Venezuela	8
Ecudor	22	Mexico	286	Viet Nam	504
El Salvador	52	Nepal	1	Yugoslavia	2
Ethiopia	12	Netherlands	1	Zambia	1
Figi Islands	4	Netherlands Antilles	4		
Finland	3	New Zealand	3		
France	13	Nicaragua	5		
French Polynesia	1	Nigeria	8		
East Germany	2	Norway	2		
West Germany	32	Pakistan	14	TOTAL = 3,761	

Figure 11.

Performance of Citizens and Non-Citizens in ESL and Non-ESL pre-Remedial Writing Courses (097)--based on Figure 7.

Course	Credit %-Non-Citizens	Credit %-Citizens
English 097ESL	57.8%	75%
English 097	76%	84.4%
CS 097	77.4%	78.5%
PAS 097	78.3%	78.5%

Figure 12.

Performance of High-Volume Pre-Remedial Writing Experimental Courses compared with performance of other Pre-Remedial Courses designated for English-as-a-Second-Language students.

Elements	Experiment Group	Comparison Group P	Comparison Group Q
Courses	English 097ESL	English 097ESL	English 097ESL
Semester	Spring 1987	Fall 1986	Fall 1987
Number of Students	48	67	73
Pre-Evaluation	EPT	EPT	EPT
Pre-Evaluation Scores	120-141	120-141	120-141
Post-Evaluation A	Course Credit	Course Credit	Course Credit
Number Receiving Credit	22	43	49
Percentage Receiving Credit	45.8%	64%	67%
Post-Evaluation B	Remedial Writing Challenge Exam	Remedial Writing Challenge Exam	Remedial Writing Challenge Exam
Post-Eval. B Scores required for successful challenge	8 or above	8 or above	8 or above
number of successful challenge	9	1	0
Percentage of successful challenges	18.75%	1.49%	0%

ATTACHMENT B

Replicating a FIPSE Literacy-Research Experiment

In 1986-87 the Fund for the Improvement of Postsecondary Education (FISPE, U.S. Dept. of Education) supported a literacy-research experiment at California State University, Northridge (CSUN), "Improving the Basic Skills and General Knowledge (Cultural Literacy) of English as a Second Language Students Through High-Volume Liberal Arts Reading." From the perspective of subsequent replication, the experiment had three features:

An appropriate subject-group. The experiment used two sections (24 students each) of a remedial reading course enrolling ESL students (Vietnamese, Korean, Iranian, Israeli, Hispanic, Armenian, and Japanese).

Appropriate comparison groups. For writing-skills improvement-comparisons, the experiment used the performance of other students (205) in the same remedial reading course (English 097): students who took the same standardized pre/post tests of writing proficiency, and who engaged in similar in-class writing activities. For general-knowledge improvement-comparisons, there were smaller groups (sophomores, seniors, graduate students) who were given the same pre/post general knowledge (cultural literacy) tests.

Appropriate high-volume reading tools used to increase the students' out-of-class reading from the conventional 500 pages to well over 5000 pages.

On the basis of these three features, the FISPE experiment can fairly be characterized as replicable, i.e., an investagator using a similar subject-group, similar comparison groups, and similar high-volume reading tools could expect to get similar results (a 1000% relative improvement in writing skills and cultural literacy). Even more important, as indicated in the report submitted to FISPE on 11/1/87, the tools used are currently available in monograph form, "Improving Cultural Literacy Through High-Volume General-Interest Reading" (ICL). So the experiment can fairly be characterized as practically replicable. The tools themselves were constructed as a way of answering three central high-volume reading questions:

What should students read?

Attachment B1 (from ICL, p. 24) answers this question, presenting a list of 18 books (roughly 5400 pages), each of which can fairly be characterized as an "up to date great book." An investigator desiring to replicate the experiment could easily draw up a similar list.

How can students be assigned appropriate individualized reading sequences?

Attachment B2 answers this question by presenting in matrix form the 18 possible "best fit" sequences in which the 18 books can be read (from ICL, p. 25). Attachment B3 presents a sample individualized assignment using a filled-out student personal-interest preference rating (from ICL, p. 34). Attachment B4 presents a sample roster (for two classes) showing the minimum "best fit" sequence assignments to 45 students (from ICL, p. 36).

How can students be tested on their individualized reading sequences?

Attachment B5 presents the "invisible question pool" book-based test-item construction process used in the experiment, thereby producing a 40-item question pool for each book. ICL (pp. 37-122) contains 25-item tests and answer keys based on these question-pools. An investigator using different books could use the same process to construct similar tests.

ATTACHMENT B1

A PRACTICAL "UP TO DATE GREAT BOOKS" READING LIST

	Abbrev.	Author	Title
1.	MCN	William McNeill	Plagues and Peoples
2.	SCH	Jonathan Schell	The Fate of the Earth
3.	BRO	Jacob Bronowski	The Ascent of Man
4.	SAG	Carl Sagan	The Dragons of Eden
5.	GAR	Roger Garside	Coming Alive: China after Mao
6.	BOL	Dwight Bolinger	Language: The Loaded Weapon
7.	DYS	Freeman Dyson	Weapons and Hope
8.	GOU	Stephen Jay Gould	The Mismeasure of Man
9.	TUC	Barbara Tuchman	The March of Folly
10.	BET	Bruno Bettleheim	The Uses of Enchantment
11.	COW	Malcolm Cowley	And I Worked at the Wirter's Trade
12.	HUN	Samuel P. Huntington	American Politics: The Promise of Disharmony
13.	WLS	Gary Wills	Inventing America
14.	GIB	Frank Gibney	Japan: The Fragile Superpower
15.	SIL	Leonard Silk	The American Establishment
16.	DRU	Peter Drucker	Adventures of a Bystander
17.	ALS	Susan Alsop	Yankees at the Court
18.	PON	Elizabeth Pond	From the Yaroslavsky Station

ATTACHMENT B2
Cultural Literacy Reading-Sequence Matrix: 18 Sequences

Note: Each sequence is identified with the three-letter abbriviation for its starting book, i.e., the sequence starting with McNeill's Plagues and Peoples is identified as MCNs. The sequences are listed in vertical order under the sequence identification.

	MCN s	SCH s	BRO s	SAG s	GAR s	BOL s	DYS s	GOU s	TUC s
1.	MCN	SCH	BRO	SAG	GAR	BOL	DYS	GOU	TUC
2.	SCH	BRO	SAG	GAR	BOL	DYS	GOU	TUC	BET
3.	BRO	SAG	GAR	BOL	DYS	GOU	TUC	BET	COW
4.	SAG	GAR	BOL	DYS	GOU	TUC	BET	COW	HUN
5.	GAR	BOL	DYS	GOU	TUC	BET	COW	HUN	WLS
6.	BOL	DYS	GOU	TUC	BET	COW	HUN	WLS	GIB
7.	DYS	GOU	TUC	BET	COW	HUN	WLS	GIB	SIL
8.	GOU	TUC	BET	COW	HUN	WLS	GIB	SIL	DRU
9.	TUC	BET	COW	HUN	WLS	GIB	SIL	DRU	ALS
10.	BET	COW	HUN	WLS	GIB	SIL	DRU	ALS	PON
11.	COW	HUN	WLS	GIB	SIL	DRU	ALS	PON	MCN
12.	HUN	WLS	GIB	SIL	DRU	ALS	PON	MCN	SCH
13.	WLS	GIB	SIL	DRU	ALS	PON	MCN	SCH	BRO
14.	GIB	SIL	DRU	ALS	PON	MCN	SCH	BRO	SAG
15.	SIL	DRU	ALS	PON	MCN	SCH	BRO	SAG	GAR
16.	DRU	ALS	PON	MCN	SCH	BRO	SAG	GAR	BOL
17.	ALS	PON	MCN	SCH	BRO	SAG	GAR	BOL	DYS
18.	PON	MCN	SCH	BRO	SAG	GAR	BOL	DYS	GOU

	BET s	COW s	HUN s	WLS s	GIB s	SIL s	DRU s	ALS s	PON s
1.	BET	COW	HUN	WLS	GIB	SIL	DRU	ALS	PON
2.	COW	HUN	WLS	GID	SIL	DRU	ALS	PON	MCN
3.	HUN	WLS	GIB	SIL	DRU	ALS	PON	MCN	SCH
4.	WLS	GIB	SIL	DRU	ALS	PON	MCN	SCH	BRO
5.	GIB	SIL	DRU	ALS	PON	MCN	SCH	BRO	SAG
6.	SIL	DRU	ALS	PON	MCN	SCH	BRO	SAG	GAR
7.	DRU	ALS	PON	MCN	SCH	BRO	SAG	GAR	BOL
8.	ALS	PON	MCN	SCH	BRO	SAG	GAR	BOL	DYS
9.	PON	MCN	SCH	BRO	SAG	GAR	BOL	DYS	GOU
10.	MCN	SCH	BRO	SAG	GAR	BOL	DYS	GOU	TUC
11.	SCH	BRO	SAG	GAR	BOL	DYS	GOU	TUC	BET
12.	BRO	SAG	GAR	BOL	DYS	GOU	TUC	BET	COW
13.	SAG	GAR	BOL	DYS	GOU	TUC	BET	COW	HUN
14.	GAR	BOL	DYS	GOU	TUC	BET	COW	HUN	WLS
15.	BOL	DYS	GOU	TUC	BET	COW	HUN	WLS	GIB
16.	DYS	GOU	TUC	BET	COW	HUN	WLS	GIB	SIL
17.	GOU	TUC	BET	COW	HUN	WLS	GIB	SIL	DRU
18.	TUC	BET	COW	HUN	WLS	GIB	SIL	DRU	ALS

ATTACHMENT B3
Sample Identifiaction of 18-Book Reading Sequence (using filled out reader-preference ranking sheet (CL-23)).

INSTRUCTIONS: Please indicate your relative preference for each of the books listed below, using a five-point scale in which 5 represents the highest ranking. (Do not write in columns b and c; these will be used by your instructor to compute your "first choice" individualized reading sequence.)

Book Abbrev.		Ranking	(b) 3-book sums	(c) Preference High-Scores
1.	MCN	4	___	___
2.	SCH	2	___	___
3.	BRO	3	9	___
4.	SAG	4	9	___
5.	GAR	2	9	___
6.	BOL	3	9	___
7.	DYS	3	8	___
8.	GOU	4	10	___
9.	TUC	3	10	___
10.	BET	5	12	GOU seq (1)
11.	COW	1	9	___
12.	HUN	1	7	___
13.	WLS	1	3	___
14.	GIB	4	6	___
15.	SIL	2	7	___
16.	DRU	5	11	___
17.	ALS	3	10	___
18.	PON	4	12	DRU seq (-ti)
	MCN	4	11	___
	SCH	2	10	___

note: On the basis of her indicated preferences, this student can be assigned either the GOU 18-book sequence or the DRU sequence.

ATTACHMENT B4
Sample Reading-Sequence Roster (sequences identified by abbreviations for the first book of each sequence).

Sequence	Section A students	Section B students
MCN	Park	Chow; Luong
SCH	Fami-Tafreshi	Ly
BRO	Pho	Shajarian
SAG	Lee; Fleischer	Lee, C.
GAR	Yang; Dashtari	Kabasi-Isfahani
BOL	Giladi	Keyvan
DYS	Hwang; Mayorga	Guardado
GOU	Yu; Yedegar	Atake
TUC	Mung	Kim, A.
BET	Lee, K.	Vo; Chen
COW	Tran, P.; Nguyen, K.	Papazian
HUN	Bayer; Spira	Ngo
WLS	Oh	Nguyen, L.
GIB	Mehdizadeh; Vaquerano	Tang
SIL	Garcia; Do	Chen
DRU	Shirinia; Azad	Vu
ALS	Hedayati	Dang
PON	Chong	Kim, J.

note: Each of these students followed the individualized reading/test-taking sequence represented by the appropriate abbreviation. Consequently, only two copies of each test booklet were needed in each twenty-minute testing-session. The scoring, using SCANTRON answer sheets, took about 15 minutes for each 45-student batch. Test results were given to the students via class-rosters and student ID number.

ATTACHMENT B5
Illustrative "Invisible Question Pool" Test-Item Construction Procedure

1. Location in book-index (the "invisible question pool") of proper name page number.

   SAMPLE PROPER NAME AND PAGE NUMBER: Bohr, Niels, 45 (from index to Freeman Dyson, Weapons and Hope)

2. Location in book of sentence containing proper name.

   SAMPLE SENTENCE CONTAINING PROPER NAME: The initial impetus behind the idea of international ownership of nuclear facilities came from the physicists Niels Bohr and Robert Oppenheimer, who had worried together about the future of nuclear weaponry while they worked on the bomb project at Los Alamos. (Dyson, Weapons and Hope, p. 45)

3. Entry in worksheet of relevant test-item data.

   SAMPLE WORKSHEET ENTRY (with headings): Book Abbreviation: DYW; Question Number: 9 ; Page Number: 45 ; Correct Answer and Letter: Niels Bohr (a) ; First Answer Foil and Letter: Madame Curie (c) ; Second Answer Foil and Letter: Werner von Braun (b) .

4. Entry in word processor of question-sentence and test-item data.

   SAMPLE WORD PROCESSOR ENTRY (with headings): Book Abbreviation DYW Question Number: 9 Page number: 45 Question Sentence: The initial impetus behind the idea of international ownership of nuclear facilities came from the physicists _____ and Robert Oppenheimer, who had worried together about the future of nuclear weaponry while they worked on the bomb project at Los Alamos. Correct Answer Letter: (a) Answer Alternatives (in alphabetical order): (a) Niels Bohr (b) Werner von Braun (c) Madame Curie.

5. Printing of test-item as question (with appropriate question number) as part of 25-item objective book-based test.

   SAMPLE TEST ITEM (abbreviation is retained in printing to permit flexibility):

   3. (DYW). The initial impetus behind the idea of international ownership of nuclear facilities came from the physicists _____ and Robert Oppenheimer, who had worried together about the future of nuclear weaponry while they worked on the bomb project at Los Alamos.
      (a) Niels Bohr
      (b) Werner von Braun
      (c) Madame Curie

ATTACHMENT C
Reading, Writing, and Writing-Proficiency Examinations: Preliminary Data

READING, as indicated by average number of books per student (juniors and seniors) checked out of the California State University Library during 1986-87

Department	Bks. per Student	Percentage of Passes WPE:8/4/86
History	19	85%
Sociology	8	62%
Theater	8	50%

WRITING, as indicated by number of courses offering direct instruction in writing beyond the required course in English composition, based on number of selections listed in CSUN Schedule of Classes, Spring 1988.

Department	No. of Writing-Courses	Percentage of Fails WPE:11/8/86
History	0	15%
Journalism	32	31.6%
Radio-Television-Film	36	42%

CONCLUSIONS: Only very tentative negative conclusions can be drawn from this very limited assembly of information. First, the evidence here indicates that students who check relatively large numbers of books out of the CSUN University Library are <u>not</u> harmed as far as their Writing-Proficiency-Examination performance goes. Second, the evidence here indicates that students in departments offering direct instruction in writing are <u>not</u> helped as far as their WPE performance goes.

IMPLICATIONS: This study indicates that the impact of direct instruction in writing upon WPE performance is questionable. Hence it is fair to say that the introduction of new direct instruction courses in writing should be preceded by a responsible analysis of the data presently available at CSUN, e.g., dept. WPE performance, dept. library-use statistics, dept. enrollment, and dept. emphasis upon direct instruction in writing--as opposed to writing required in connection with subject-emphasis courses. Such a study might well demonstrate that library-use, not writing instruction, is the significant variable in WPE performance, thereby lending support to the common sense notion that young people will not be hurt if they read some good books--lots of them.

ATTACHMENT D
Improving Writing Skills Through Individualized High-Speed General-Interest Reading: Some Notes on Current Research

THE PREMISE: Writing skills can be improved through reading.

--This premise is forcefully supported by Krashen (1984), who cites and describes numerous other studies regarding reading, especially high-volume reading, as the determining factor in writing-skills performance. Simon (1979), a Nobel Laureate for his work in perception and decision theory, offers some theoretical support, pointing out that spelling skills are clearly aquired through sustained visual exposure via reading, since Paul Hannah's "600 rules of American spelling" would only produce about 80% performance accuracy.

--The premise implicitly questions the notion that writing skills can be aquired via direct classroom instruction. This questioning is supported by Irmscher (1987), the longtime editor of College Composition and Communication, who points out in a research-review article that a lack of scientific rigor characterizes current writing-instruction research. This questioning is also indirectly supported by Hirsch (1987), who criticizes the "romantic formalism" skills-approach to reading with a clear implication that a skills-approach to writing may be equally misguided.

--The general-interest reading component of the premise implicitly questions current practices in higher education: specilization, erosion of general-education core requirements, etc. This questioning is forcefully supported by Bloom (1987) and Jaccoby (1987), both of whom criticize the anti-intellectualism that characterizes American education today. Along the same lines, Mortimer Adler in a recent conference on coherence in the liberal arts (University of North Texas, 11/20/88) stated that it was better to have a great book with a mediocre teacher than a good teacher with a mediocre book--especially a textbook.

--To sum up: The reading-premise is on the surface unexceptional (opposition to it therfore usually takes a covert form).

THE PROCEDURES: High-speed reading, individualized reading sequences, and book-based objective tests.

-- The notion that high-speed reading is desirable is supported by Bruner (1983), who describes an informal classroom experiment in which upper division psychology majors each read three books a week--all classics in the field.

--The notion of recognizing individual differences in assigning reading sequences is supported by the work of Smith (1982), who points out how differences in background and knowledge affect a reader's response. The notion is also supported by Hirsch, who points out the importance of knwoledge and general knowledge (cultural literacy) in text comprehension.

--The support for book-based objective tests is only indirect. The need for such tests is supported by an inspection of the ETS catalog (1987), which lists only three (out of approximately 15,000): one on Shakespeare's plays and two on mythology books by Edith

Hamilton. The reason for this deficiency is suggested by Bormuth (1970) and by Crocker and Algina (1986), who note that American testing theory, despite its statistical sophistication, lacks a coherent, workable theory of "test-item construction," especially one that would guide the construction of book-based test items.

--The notion of proper-names as a key to effective book-based test-item construction is supported by Bennett (1985), Hirsch, and Ravitch (1987), all of whom emphasize the importance of "great names" knowledge ("great lives," ect.) as a key component of culturally important general knowledge.

ATTACHMENT D1

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